

## VERTICALLY INTEGRATED PHOTODIODE FOR CMOS IMAGERS

### ABSTRACT OF THE DISCLOSURE

An exemplary system and method for providing a vertically integrated photosensing element suitably adapted for use in CMOS imaging applications is disclosed as comprising *inter alia*: a processed CMOS layer (420); and a photosensing element (380) fabricated in a vertically integrated optically active layer (320, 350), where the optically active layer (320, 350) is bonded to the CMOS layer (420) and the optically active layer (320, 350) is positioned near a metalization surface (405) of the CMOS layer (420). Disclosed features and specifications may be variously controlled, configured, adapted or otherwise optionally modified to further improve or otherwise optimize photosensing performance or other material characteristics. Exemplary embodiments of the present invention representatively provide for integrated photosensing components that may be readily incorporated with existing technologies for the improvement of CMOS imaging, device package form factors, weights and/or other manufacturing, device or material performance metrics.